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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,594	11/07/2001	Eric Olson	UTSD:729US/SLH	8497

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EXAMINER

BERTOGLIO, VALERIE E

ART UNIT PAPER NUMBER

1632

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/045,594	OLSON ET AL.
	Examiner Valarie Bertoglio	Art Unit 1632
<i>-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --</i>		
<b>Period for Reply</b>		
<b>A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>30</u> days MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.</b>		
<ul style="list-style-type: none"> <li>- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.</li> <li>- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.</li> <li>- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.</li> <li>- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).</li> <li>- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).</li> </ul>		
<b>Status</b>		
1) <input type="checkbox"/> Responsive to communication(s) filed on ____. 2a) <input type="checkbox"/> This action is <b>FINAL</b> .                    2b) <input checked="" type="checkbox"/> This action is non-final. 3) <input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.		
<b>Disposition of Claims</b>		
4) <input checked="" type="checkbox"/> Claim(s) <u>1-105</u> is/are pending in the application. 4a) Of the above claim(s) ____ is/are withdrawn from consideration. 5) <input type="checkbox"/> Claim(s) ____ is/are allowed. 6) <input type="checkbox"/> Claim(s) ____ is/are rejected. 7) <input type="checkbox"/> Claim(s) ____ is/are objected to. 8) <input checked="" type="checkbox"/> Claim(s) <u>1-105</u> are subject to restriction and/or election requirement.		
<b>Application Papers</b>		
9) <input type="checkbox"/> The specification is objected to by the Examiner. 10) <input type="checkbox"/> The drawing(s) filed on ____ is/are: a) <input type="checkbox"/> accepted or b) <input type="checkbox"/> objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). 11) <input type="checkbox"/> The proposed drawing correction filed on ____ is: a) <input type="checkbox"/> approved b) <input type="checkbox"/> disapproved by the Examiner. If approved, corrected drawings are required in reply to this Office action. 12) <input type="checkbox"/> The oath or declaration is objected to by the Examiner.		
<b>Priority under 35 U.S.C. §§ 119 and 120</b>		
13) <input type="checkbox"/> Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) <input type="checkbox"/> All    b) <input type="checkbox"/> Some * c) <input type="checkbox"/> None of: 1. <input type="checkbox"/> Certified copies of the priority documents have been received. 2. <input type="checkbox"/> Certified copies of the priority documents have been received in Application No. ____. 3. <input type="checkbox"/> Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 14) <input checked="" type="checkbox"/> Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application). a) <input type="checkbox"/> The translation of the foreign language provisional application has been received. 15) <input type="checkbox"/> Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.		
<b>Attachment(s)</b>		
1) <input type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6) <input checked="" type="checkbox"/> Other: <i>Seq. Compliance Notice</i> .		

## DETAILED ACTION

This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR 1.821(a)(1) and (a)(2). However, this application fails to comply with the requirements of 37 CFR 1.821 through 1.825 for the reason(s) set forth on the attached Notice To Comply With Requirements For Patent Applications Containing Nucleotide Sequence And/Or Amino Acid Sequence Disclosures. **Figures 1A-1E, 2A-2D, and 13 do not contain SEQ ID NUMBERS.** Applicants must file a "Sequence Listing" accompanied by directions to enter the listing into the specification as an amendment. Applicant also must provide statements regarding sameness and new matter with regards to the CRF and the "Sequence Listing." Applicant is requested to return a copy of the attached Notice to Comply with the reply. Failure to fully comply with the sequence rules in response to the instant office action will be considered non-responsive.

### *Election/Restrictions*

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1,2,7, drawn to a polypeptide comprising SEQ ID NO:2, classified in class 530, subclass 350.
- II. Claims 3,4,8, drawn to a polypeptide comprising SEQ ID NO:6, classified in class 530, subclass 350.
- III. Claims 5,6,9, drawn to a polypeptide comprising SEQ ID NO:10, classified in class 530, subclass 350.

- IV. Claims 10-12 and 19, drawn to a nucleic acid encoding SEQ ID NO:2, classified in class 536, subclass 23.1.
- V. Claims 13-15 and 20, drawn to a nucleic acid encoding SEQ ID NO:6, classified in class 536, subclass 23.1.
- VI. Claims 16-18 and 21, drawn to a nucleic acid encoding SEQ ID NO:10, classified in class 536, subclass 23.1.
- VII. Claims 22-24, drawn to a knockout non-human animal comprising a defective calsarcin gene, classified in class 800, subclass 8.
- VIII. Claims 25-29, drawn to a transgenic non-human animal comprising an expression cassette comprising a nucleic acid encoding a calsarcin polypeptide, classified in class 800, subclass 8.
- IX. Claims 30 and 31, drawn to an antibody that binds a polypeptide comprising SEQ ID NO:2, classified in class 530, subclass 387.1.
- X. Claims 32 and 33, drawn to drawn to an antibody that binds a polypeptide comprising SEQ ID NO:6, classified in class 530, subclass 387.1.
- XI. Claims 34 and 35, drawn to drawn to an antibody that binds a polypeptide comprising SEQ ID NO:10, classified in class 530, subclass 387.1.
- XII. Claims 36-37, drawn to a method of modulating calcineurin activity in vivo via administering a polypeptide, classified in class 514, subclass 2.
- XIII. Claims 38-42, drawn to a method of modulating calcineurin activity in vivo via administering a nucleic acid, classified in class 514, subclass 44.

- XIV. Claims 43-44, drawn to a method of screening for peptides that interact with a calsarcin using a cell, classified in class 435, subclass 7.1.
- XV. Claims 45,46, 51-57, drawn to a method of screening for a modulator of calsarcin binding to  $\alpha$ -actinin in vitro in a cell free system, classified in multiple classes and subclasses.
- XVI. Claims 45, 47-49, 51-57, drawn to a method of screening for a modulator of calsarcin binding to  $\alpha$ -actinin in vitro in a cell, classified in multiple classes and subclasses.
- XVII. Claim 45 and 47-57 drawn to a method of screening for a modulator of calsarcin binding to  $\alpha$ -actinin in vivo, classified in class 424, subclass 9.1.
- XVIII. Claims 58,59, 64-70, drawn to a method of screening for a modulator of calsarcin binding to calcineurin in vitro in a cell free system, classified in multiple classes and subclasses.
- XIX. Claims 58, 60-62, 64-70, drawn to a method of screening for a modulator of calsarcin binding to calcineurin in vitro in a cell, classified in multiple classes and subclasses.
- XX. Claim 58, 60-70, drawn to a method of screening for a modulator of calsarcin binding to calcineurin in vivo, classified in class 424, subclass 9.1.
- XXI. Claims 71,72 and 77-83, drawn to a method of screening for a modulator of calsarcin binding to telethonin in vitro in a cell free system, classified in multiple classes and subclasses.

XXII. Claims 71,73-75 and 77-83, drawn to a method of screening for a modulator of calsarcin binding to telethonin in vitro in a cell, classified in multiple classes and subclasses.

XXIII. Claim 71, 73-83, drawn to a method of screening for a modulator of calsarcin binding to telethonin in vivo, classified in class 424, subclass 9.1.

XXIV. Claim 84, drawn to a method of treating cardiac hypertrophy using protein, classified in class 514, subclass 2.

XXV. Claim 84, drawn to a method of treating heart failure using protein, classified in class 514, subclass 2.

XXVI. Claim 84, drawn to a method of treating Type II diabetes using protein, classified in class 514, subclass 2.

XXVII. Claim 85-89, drawn to a method of treating cardiac hypertrophy using a nucleic acid, classified in class 514, subclass 44.

XXVIII.Claim 85-89, drawn to a method of treating heart failure using a nucleic acid, classified in class 514, subclass 44.

XXIX. Claim 85-89, drawn to a method of treating Type II diabetes using a nucleic acid, classified in class 514, subclass 44.

XXX. Claims 90-94, drawn to a method of inhibiting calcineurin activation of gene transcription, classified in class 435, subclass 325.

XXXI. Claims 95 and 96, drawn to a method of screening for peptides that binds calsarcin in a cell free system, classified in class 435, subclass 7.1.

XXXII. Claims 97-103, drawn to a method of screening for a substance for anti-cardiomyopic hypertrophy activity, classified in class 435, subclass 325.

XXXIII. Claims 97-103, drawn to drawn to a method of screening for a substance for anti-heart failure activity, classified in class 435, subclass 325.

XXXIV. Claims 97-102 and 104, drawn to a method of screening for a substance for anti-cardiomyopic hypertrophy activity in vivo in a non-transgenic animal, classified in class 424, subclass 9.1.

XXXV. Claims 97-102 and 104, drawn to a method of screening for a substance for anti-heart failure activity in vivo in a non-transgenic animal, classified in class 424, subclass 9.1.

XXXVI. Claims 97-102, 104 and 105, drawn to a method of screening for a substance for anti-cardiomyopic hypertrophy activity in vivo in a transgenic non-human animal, classified in class 800, subclass 3.

XXXVII. Claims 97-102, 104 and 105, drawn to a method of screening for a substance for anti-heart failure activity in vivo in a transgenic non-human animal, classified in class 800, subclass 3.

Claim 105, as written, is dependent upon itself. However, for the purpose of restriction, it will be interpreted as depending from claim 104 and therefore, is considered part of Inventions XXXVI and XXXII.

The inventions are distinct, each from the other because of the following reasons:

Inventions I-III are patentably distinct because they are structurally and functionally distinct. The amino acid sequence is different for each polypeptide. The polypeptide of each group is not required for the other. The burden required to search Groups I-III together would be undue.

Invention I and Inventions IV, V or VI are patentably distinct because the polypeptide can be used to generate antibody while the nucleic acid can be used as a probe. The polypeptide is not necessary for the nucleic acid and the nucleic acid is not necessary for the polypeptide. The burden required to search Inventions I and Groups IV, V, or VI together would be undue.

Invention I and Inventions VII or VIII are patentably distinct because the polypeptide can be used to generate antibody while the transgenic animals can be used to screen for modulators of calsarcin binding. The polypeptide is not necessary for the transgenic and the transgenic is not necessary for the polypeptide. The burden required to search Invention I and Inventions VII or VIII together would be undue.

Invention I and Inventions IX, X, or XI are patentably distinct because the polypeptide can be used to modulate calcineurin activity while the antibody can be used to detect the presence of a calsarcin. The burden required to search Groups I and Groups IX, X, or XI together would be undue.

Inventions I and XII are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different

process of using that product (MPEP § 806.05(h)). In the instant case the polypeptide can be used to generate antibodies.

Inventions I and XIII are patentably distinct because the polypeptide can be used to generate antibody while methods can be used to modulate calcineurin activity using a nucleic acid in vivo. The polypeptide is not necessary for the methods and the methods are not necessary for the polypeptide. The burden required to search Inventions I and XIII together would be undue.

Invention I and Inventions XIV-XXXVI or XXXVII are patentably distinct because the polypeptide can be used to generate antibody while the methods of Invention XIV can be used to screen for peptides that interact with a calsarcin, the methods of Inventions XV-XXIII can be used to screen for a modulator of calsarcin binding, the methods of Invention XXIV-XXIX can be used to treat disease, the methods of Invention XXX can be used to inhibit calcineurin activation of gene transcription, the methods of Invention XXXI can be used to screen for peptides that bind calsarcin using a cell free system the methods of Invention XXXII-XXXVII can be used to screen substances for anti-cardiomyopic hypertrophy activity or anti-heart failure activity. The burden required to search Invention I and Inventions XIV-XXXVI or XXXVII together would be undue.

Invention II and Inventions IV, V or VI are patentably distinct because the polypeptide can be used to generate antibody while the nucleic acid can be used as a probe. The polypeptide is not necessary for the nucleic acid and the nucleic acid is not necessary for the polypeptide. The burden required to search Invention II and Groups IV, V, or VI together would be undue.

Invention II and Inventions VII or VIII are patentably distinct because the polypeptide can be used to generate antibody while the transgenic animals can be used to screen for modulators of calsarcin binding. The polypeptide is not necessary for the transgenic and the transgenic is not necessary for the polypeptide. The burden required to search Invention II and Invention VII or VIII together would be undue.

Invention II and Inventions IX, X, or XI are patentably distinct because the polypeptide can be used to modulate calcineurin activity while the antibody can be used to detect the presence of a calsarcin. The burden required to search Invention II and Inventions IX, X, or XI together would be undue.

Inventions II and XII are related as product and process of use. In the instant case the polypeptide can be used in a materially different process of generating antibodies.

Inventions II and XIII are patentably distinct because the polypeptide can be used to generate antibody while methods can be used to modulate calcineurin activity using a nucleic acid in vivo. The polypeptide is not necessary for the methods and the methods are not necessary for the polypeptide. The burden required to search Inventions II and XIII together would be undue.

Invention II and Inventions XIV-XXXVI or XXXVII are patentably distinct because the polypeptide can be used to generate antibody while methods of Invention XIV can be used to screen for peptides that interact with a calsarcin, the methods of Inventions XV-XXIII can be used to screen for a modulator of calsarcin binding, the methods of Invention XXIV-XXIX can be used to treat disease, the methods of Invention XXX can

be used to inhibit calcineurin activation of gene transcription, the methods of Invention XXXI can be used to screen for peptides that bind calsarcin using a cell free system the methods of Invention XXXII-XXXVII can be used to screen substances for anti-cardiomyopic hypertrophy activity or anti-heart failure activity. The burden required to search Invention II and Inventions XIV-XXXVI or XXXVII together would be undue.

Invention III and Inventions IV, V or VI are patentably distinct because the polypeptide can be used to generate antibody while the nucleic acid can be used as a probe. The polypeptide is not necessary for the nucleic acid and the nucleic acid is not necessary for the polypeptide. The burden required to search Invention III and Inventions IV, V, or VI together would be undue.

Invention III and Inventions VII or VIII are patentably distinct because the polypeptide can be used to generate antibody while the transgenic animals can be used to screen for modulators of calsarcin binding. The polypeptide is not necessary for the transgenic and the transgenic is not necessary for the polypeptide. The burden required to search Invention III and Invention VII or VIII together would be undue.

Invention III and Inventions IX, X, or XI are patentably distinct because the polypeptide can be used to modulate calcineurin activity while the antibody can be used to detect the presence of a calsarcin. The burden required to search Invention III and Inventions IX, X, or XI together would be undue.

Inventions III and XII are related as product and process of use. In the instant case the polypeptide can be used in a materially different process of generating antibodies.

Inventions II and XIII are patentably distinct because the polypeptide can be used to generate antibody while methods can be used to modulate calcineurin activity using a nucleic acid in vivo. The polypeptide is not necessary for the methods and the methods are not necessary for the polypeptide. The burden required to search Inventions II and XIII together would be undue.

Invention III and Inventions XIV-XXXVI or XXXVII are patentably distinct because the polypeptide can be used to generate antibody while the methods of Invention XIV can be used to screen for peptides that interact with a calsarcin, the methods of Inventions XV-XXIII can be used to screen for a modulator of calsarcin binding, the methods of Invention XXIV-XXIX can be used to treat disease, the methods of Invention XXX can be used to inhibit calcineurin activation of gene transcription, the methods of Invention XXXI can be used to screen for peptides that bind calsarcin using a cell free system, the methods of Invention XXXII-XXXVII can be used to screen substances for anti-cardiomyopic hypertrophy activity or anti-heart failure activity. The burden required to search Invention III and Inventions XIV-XXXVI or XXXVII together would be undue.

Inventions IV-VI are patentably distinct because they are structurally and functionally distinct. The nucleic acid sequence of each Invention is different. The nucleic acid of each invention is not required for the other. The burden required to search Inventions IV-VI together would be undue.

Invention IV and Inventions VII or VIII are patentably distinct because the nucleic acid can be used to generate protein while the transgenic animals can be used to screen for modulators of calsarcin binding. The nucleic acid is not necessary for the

transgenic and the transgenic is not necessary for the nucleic acid. The burden required to search Invention IV and Invention VII or VIII together would be undue.

Invention IV and Inventions IX, X, or XI are patentably distinct because the nucleic acid can be used to generate protein while the antibody can be used to detect the presence of a calsarcin. The burden required to search Invention IV and Inventions IX, X, or XI together would be undue.

Invention IV and Inventions XII-XXXVI or XXXVII are patentably distinct because the nucleic acid can be used to generate protein while the methods of Invention XII or XIII can be used to modulate calcineurin activity, the methods of Invention XIV can be used to screen for peptides that interact with a calsarcin, the methods of Inventions XV-XXIII can be used to screen for a modulator of calsarcin binding, the methods of Invention XXIV-XXIX can be used to treat disease, the methods of Invention XXX can be used to inhibit calcineurin activation of gene transcription, the methods of Invention XXXI can be used to screen for peptides that bind calsarcin using a cell free system, the methods of Invention XXXII-XXXVII can be used to screen substances for anti-cardiomyopic hypertrophy activity or anti-heart failure activity. The burden required to search Invention IV and Inventions XII-XXXVI or XXXVII together would be undue.

Invention V and Inventions VII or VIII are patentably distinct because the nucleic acid can be used to generate protein while the transgenic animals can be used to screen for modulators of calsarcin binding. The nucleic acid is not necessary for the transgenic and the transgenic is not necessary for the nucleic acid. The burden required to search Invention V and Invention VII or VIII together would be undue.

Invention V and Inventions IX, X, or XI are patentably distinct because the nucleic acid can be used to generate protein while the antibody can be used to detect the presence of a calsarcin. The burden required to search Invention V and Inventions IX, X, or XI together would be undue.

Invention V and Inventions XII-XXXVI or XXXVII are patentably distinct because the nucleic acid can be used to generate protein while the methods of Invention XII or XIII can be used to modulate calcineurin activity, the methods of Invention XIV can be used to screen for peptides that interact with a calsarcin, the methods of Inventions XV-XXIII can be used to screen for a modulator of calsarcin binding, the methods of Invention XXIV-XXIX can be used to treat disease, the methods of Invention XXX can be used to inhibit calcineurin activation of gene transcription, the methods of Invention XXXI can be used to screen for peptides that bind calsarcin using a cell free system, the methods of Invention XXXII-XXXVII can be used to screen substances for anti-cardiomyopic hypertrophy activity or anti-heart failure activity. The burden required to search Invention V and Inventions XII-XXXVI or XXXVII together would be undue.

Invention VI and Inventions VII or VIII are patentably distinct because the nucleic acid can be used to generate protein while the transgenic animals can be used to screen for modulators of calsarcin binding. The nucleic acid is not necessary for the transgenic and the transgenic is not necessary for the nucleic acid. The burden required to search Invention VI and Invention VII or VIII together would be undue.

Invention VI and Inventions IX, X, or XI are patentably distinct because the nucleic acid can be used to generate protein while the antibody can be used to detect

the presence of a calsarcin. The burden required to search Invention VI and Inventions IX, X, or XI together would be undue.

Invention VI and Inventions XII-XXXVI or XXXVII are patentably distinct because the polypeptide can be used to generate antibody while the methods of Invention XII can be used to modulate calcineurin activity, the methods of Invention XIV can be used to screen for peptides that interact with a calsarcin, the methods of Inventions XV-XXIII can be used to screen for a modulator of calsarcin binding, the methods of Invention XXIV-XXIX can be used to treat disease, the methods of Invention XXX can be used to inhibit calcineurin activation of gene transcription, the methods of Invention XXXI can be used to screen for peptides that bind calsarcin using a cell free system, the methods of Invention XXXII-XXXVII can be used to screen substances for anti-cardiomyopic hypertrophy activity or anti-heart failure activity. The burden required to search Invention VI and Inventions XII-XXXVI or XXXVII together would be undue.

Inventions VII and VIII are patentably distinct because the knockout animal can be used to screen substances for anti-cardiomyopic hypertrophy activity in vivo while the transgenic can be used to modulate calcineurin activity in vivo. The knockout comprising a defective calsarcin and the transgenic comprising a nucleic acid encoding a calsarcin are genetically and structurally distinct. The burden required to search Inventions VII and VIII together would be undue.

Invention VII and Inventions IX, X, or XI are patentably distinct because the knockout animal can be used to screen substances for anti-cardiomyopic hypertrophy activity while the antibody can be used to detect the presence of a calsarcin. The

knockout is not necessary for the antibody and the antibody is not necessary for the knockout. The burden required to search Invention VII and Inventions IX, X, or XI together would be undue.

Invention VII and Inventions XII-XXXVI or XXXIII are patentably distinct because the knockout animal can be used to screen substances for anti-cardiomyopic hypertrophy activity while the methods of Invention XII can be used to modulate calcineurin activity, the methods of Invention XIV can be used to screen for peptides that interact with a calsarcin, the methods of Inventions XV-XXIII can be used to screen for a modulator of calsarcin binding, the methods of Invention XXIV-XXIX can be used to treat disease, the methods of Invention XXX can be used to inhibit calcineurin activation of gene transcription, the methods of Invention XXXI can be used to screen for peptides that bind calsarcin using a cell free system, the methods of Invention XXXII-XXXVII can be used to screen substances for anti-cardiomyopic hypertrophy activity or anti-heart failure activity. The burden required to search Invention VI and Inventions XII-XXXVI or XXXVII together would be undue.

Invention VIII and Inventions IX, X, or XI are patentably distinct because the transgenic animal can be used to overexpress a calsarcin in vivo while the antibody can be used to detect the presence of a calsarcin. The transgenic is not necessary for the antibody and the antibody is not necessary for transgenic. The burden required to search Invention VIII and Inventions IX, X, or XI together would be undue.

Invention VIII and Inventions XII-XXXVI or XXXVII are patentably distinct because the transgenic animal can be used to overexpress a calsarcin in vivo while

methods of Invention XII can be used to modulate calcineurin activity, the methods of Invention XIV can be used to screen for peptides that interact with a calsarcin, the methods of Inventions XV-XXIII can be used to screen for a modulator of calsarcin binding, the methods of Invention XXIV-XXIX can be used to treat disease, the methods of Invention XXX can be used to inhibit calcineurin activation of gene transcription, the methods of Invention XXXI can be used to screen for peptides that bind calsarcin using a cell free system, the methods of Invention XXXII-XXVII can be used to screen substances for anti-cardiomyopic hypertrophy activity or anti-heart failure activity. The burden required to search Invention VI and Inventions XII-XXXVI or XXXVII together would be undue.

Inventions IX-XI are patentably distinct because they are structurally and functionally distinct. The antibody of each Invention is generated to be specific for distinct proteins. The antibody of each invention is not necessary for the other. The burden required to search Inventions IX-XI together would be undue.

The methods of each of Inventions XII-XXXVII are materially different and plurally independent from each other because each is practiced with materially different method steps and each is practiced independent of the other with different technical considerations. The purpose of Invention XII is to modulate calcineurin activity by administering a polypeptide. The purpose of Invention XIII is to modulate calcineurin in vivo using a nucleic acid. The purpose of Invention XIV is to screen for peptides that interact with a calsarcin using a cell. The purpose of Inventions XV-XVII is to screen for a modulator of calsarcin binding to alpha-actinin using a cell free system (Invention XV)

a cell (Invention XVI) or in vivo (Invention XVII). The purpose of Inventions XVIII-XX is to screen for a modulator of calsarcin binding to calcineurin using a cell free system (Invention XVIII), a cell (Invention XIX) or in vivo (Invention XX). The purpose of Inventions XXI-XXIII is to screen for a modulator of calsarcin binding to telethonin using a cell free extract (Invention XXI) or a cell (Invention XXII) or in vivo (Invention XXIII). The purpose of Invention XXIV is to treat cardiac hypertrophy using a protein. The purpose of Invention XXV is to treat heart failure using protein. The purpose of Invention XXVI is to treat Type II diabetes using protein. The purpose of Invention XXVII is to treat cardiac hypertrophy using a nucleic acid. The purpose of Invention XXVIII is to treat heart failure using a nucleic acid. The purpose of Invention XXIX is to treat Type II diabetes using a nucleic acid. The purpose of Invention XXX is to inhibit calcineurin activation of gene transcription. The purpose of Invention XXXI is to screen for peptides that bind calsarcin using a cell free system. The purpose of Invention XXXII, XXXIV and XXVI is to screen substances for anti-cardiomyopic hypertrophy activity in vitro (XXXII), in vivo (XXXIV) or in a transgenic animal (XXXVI). The purpose of Invention XXXIII, XXXV and XXXVII is to screen substances for anti-heart failure activity in vitro (XXXIII), in vivo (XXXV) or in a transgenic animal (XXXVII). The burden required to search Inventions XII-XXXIII together would be undue.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and their recognized divergent subject matter and because the searches for the groups are not coextensive, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Valarie Bertoglio whose telephone number is 703-305-5469. The examiner can normally be reached on 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Reynolds can be reached on 703-305-4051. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9307 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1234.

PETER PAHAS  
PATENT EXAMINER



Valarie Bertoglio  
Patent Examiner

**NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING  
NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES**

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 C.F.R. 1.821 - 1.825 for the following reason(s):

- 1. This application clearly fails to comply with the requirements of 37 C.F.R. 1.821-1.825. Applicant's attention is directed to these regulations, published at 1114 OG 29, May 15, 1990 and at 55 FR 18230, May 1, 1990.
- 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 C.F.R. 1.821(c).
- 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 C.F.R. 1.821(e).
- 4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing."
- 5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A Substitute computer readable form must be submitted as required by 37 C.F.R. 1.825(d).
- 6. The paper copy of the "Sequence Listing" is not the same as the computer readable from of the "Sequence Listing" as required by 37 C.F.R. 1.821(e).
- 7. Other: Figures 1A-1E, 2A-2D, and 13 do not contain SEQ ID NUMBERS.

**If Necessary, Applicant Must Provide:**

- An initial or substitute computer readable form (CRF) copy of the "Sequence Listing".
- An initial or substitute paper copy of the "Sequence Listing", as well as an amendment directing its entry into the specification.
- A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 C.F.R. 1.821(e) or 1.821(f) or 1.821(g) or 1.825(b) or 1.825(d).

For questions regarding compliance to these requirements, please contact:

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